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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,954	12/15/2000	Benjamin F. Cravatt	SCRIP1210-2	1708

7590 05/27/2004

Lisa A. Haile, Ph.D.
Gray Cary Ware & Freidenrich LLP
Suite 1100
4365 Executive Drive
San Diego, CA 92121-2189

EXAMINER
TRAN, MY CHAU T

ART UNIT	PAPER NUMBER
1639	

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/738,954	CRAVATT ET AL.	
	Examiner	Art Unit	
	MY-CHAU T TRAN	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) *1-16,18-31,41 and 47-52* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17, 32-40, and 42-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 November 2003 and 15 March 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Applicant's amendment filed 3/15/04 is acknowledged and entered. Claims 32, 35-38, 42-44, and 46 have been amended.

2. **NOTE:** Claim 17 is designated as "previously presented", ***but*** the present claim 17 has been amended. Claim 17 as presented in the response filed on 3/15/04 is as follows:

" *A method for determining in a plurality of proteomic mixtures the presence of active target members of a group of related proteins in each of said proteomic mixtures, said related proteins related in having a common functionality for conjugation at an active site, said method comprising:*

*combining each of said proteomic mixtures with (**at least one activity-based**) probe comprising a reactive functionality specific for said active site when active, under conditions for conjugation of said probe(**(s)**) to said target members;*

*determining the presence of target members conjugated with said probe in (**each of**) said proteomic mixtures;*

*whereby (**the presence of**) said target members conjugated to(**said probe(s)**) in said proteomic mixtures (**is indicative of**) the presence of active target members (**in said mixtures**).*"

The bolded, parenthesis words were deleted from the previously presented claim 17 filed on 3/15/04. Thus claim 17 is considered as amended.

3. Claims 42, and 44-46 were amended by the amendment filed on 3/24/03.

4. Claims 11-26 were amended by the amendment filed on 4/30/02. And new claims 27-47, which were renumbered to be Claims 32-52 in accordance with 37 CFR 1.126, were added by the amendment filed on 4/30/02.

5. Claims 11-52 are pending.

6. This application claims priority to three provisional applications. They are 60/195,954 filed 4/10/2000, 60/212,891 filed 6/20/2000, and 60/222,532 filed 8/2/2000.

Information Disclosure Statement

7. The information disclosure statement (IDS) submitted by applicant filed on 11/17/03 is acknowledged and considered as noted on PTO-1449.

Election/Restrictions

8. Claims 1-16, 18-31, 41, and 47-52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to ***nonelected inventions***, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 14 (dated 9/26/02).

9. This application contains claims 1-16, 18-31, 41, and 47-52 are drawn to an invention nonelected with traverse in Paper No. 14 (dated 9/26/02). A complete reply to the final rejection

must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

10. Claims 17, 32-40, and 42-46 are treated on the merit in this Office Action.

Withdrawn Objections and /or Rejections

11. In view of applicant's arguments and amendments of claim 38, the previous rejections under 35 USC 112, second paragraph, with regard to claims 17, 32-35, 37-40, and 42-46 have been withdrawn.

Response to Amendment

12. The declaration under 37 CFR 1.132 filed 3/15/04 is insufficient to overcome the rejection under 35 USC 102(a) of claims 7, 32-36, 38-40, 42, and 46 based upon Liu et al. (*PNAS*, **1999**, 96(26): 14694-14699) as set forth in the last Office action because: the inventive entity would still be different even if Liu is remove (e.g. the Lui et al. publication would have Patricelli and Cravatt whereas the current application has Cravatt, Sorensen, Patricelli, and Lovato).

13. The declaration under 37 CFR 1.132 filed 3/15/04 is insufficient to overcome the rejection under 35 USC 103(a) of claims 17, 32-40, 42, and 46 based upon Liu et al. (*PNAS*, **1999**, 96(26): 14694-14699) and Blanchard et al. (US Patent 5,151,164) as set forth in the last Office action because: the inventive entity would still be different even if Liu is remove from

Lui et al. publication (e.g. the Lui et al. publication would have Patricelli and Cravatt whereas the current application has Cravatt, Sorensen, Patricelli, and Lovato).

Maintained Rejections

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

15. Claims 17, and 32-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. (This is a written description rejection).

The present claims are directed to determining the presence of active target members of a group of related proteins in each of the plurality of proteomic mixtures in which the related proteins related in having a common functionality for conjugation at an active site and the probe having a reactive functionality specific for the active site. There is no claimed structure or other identifying characteristics presented with respect to the type of "active target members" (e.g. the specific type of protein or the protein sequence) or for that matter the common functionality for conjugation of the probe and the active target members (e.g. the sequence for the binding site of the "active target members" to the probe).

The specification description is directed to the syntheses of a specific probe (e.g. the for biotinylated fluorophosphonate probe such as FP-biotin and FP-peg-biotin) that have specificity toward an "active target member" (e.g. serine hydrolases), which clearly do not provide an adequate representation regarding the open ended claimed the "active target members" (e.g. other type of hydrolases such as glycoside hydrolases or other type of enzymes such as ligases) and the probe specific for other type of "active target members" for the method of the presently claimed invention.

With regard to the description requirement, Applicants' attention is directed to The Court of Appeals for the Federal Circuit which held that a "written description of an invention involving a chemical genus, like a description of a chemical species, 'requires a precise definition, such as by structure, formula [or] chemical name,' of the claimed subject matter sufficient to distinguish it from other materials." *University of California v. Eli Lilly and Co.*, 43 USPQ2d 1398, 1405 (1997), quoting *Fiers v. Revel,* 25 USPQ2d 1601, 1606 (Fed. Cir. 1993) (bracketed material in original)[The claims at issue in *University of California v. Eli Lilly* defined the invention by function of the claimed DNA (encoding insulin)].

Although directed to DNA compounds, this holding would be deemed to be applicable to any compound; which requires a representative sample of compounds and/or a showing of sufficient identifying characteristics; to demonstrate possession of the claimed generic(s) (e.g. all type of protein).

In the present instance, the claimed invention contains no identifying characteristics regarding the "active target members" being detected and the probes specific to the "active target members".

Additionally, the narrow scope of examples directed to specific detection of serine hydrolases and the probe specific to serine hydrolases is clearly not representative of the scope of detecting all type of proteins with any type probe specific to the protein of interest of the presently claimed invention.

Response to Arguments

16. Applicant's arguments directed to the rejection under 35 U.S.C. 112, first paragraph (written description), for claims 17, and 32-39 have been fully considered but they are not persuasive for the following reasons.

Applicant contends that there is adequate written description for the presently claimed method because 1) they should be able to extend their only example that has been reduced to practice (e.g. Example 5 of the specification disclosure, which consist of profiling serine hydrolases in rat tissues with FP-biotin) to an infinite number of possibilities because they have disclosed a laundry list of potential species (e.g., chemically reactive groups, active target proteins, etc.) that might work with the claimed invention. Applicants further cite *In re Bell* in support of this position noting that the representative number of species do not require the description to be of such specificity that it would provide individual support for each species that the genus embraces (e.g., see Response, pages 17-24 and references to Applicants' specification therein; see especially page 18, paragraph 3). Furthermore, Applicants state that their ONE example that was reduced to practice was not meant to be limiting.

2) Applicants argue that they are entitled to claims drawn as broadly as the prior art will allow and cite *Union oil Co.* in support of this position (e.g., see Response, page 24, paragraph 3).

3) Applicants disagree with the position that there are "no identifying characteristics … with respect to the type of 'active target members' (e.g., the specific type of protein or the protein sequence) or . . . a common functionality for the conjugation of the probe and the active target members (e.g., the sequence for the binding site of the 'active target members' to the probe) and the probes specific to the active target members" (e.g., see Response, page 18, paragraph 1).

Applicant's arguments are not convincing since 1) *In re Bell* does not apply here because the art is unpredictable (see Adam et al. (*Chemistry & Biology*, **2001**, 8(1):81-95; *cited in IDS filed 11/17/03*). The Examiner agrees with Applicant that an "adequate description of a 'representative number' of species does not require the description to be of such specificity that it would provide individual support for each species that the genus embraces" (see Response, page 18, paragraph 3; MPEP § 2163). However, the Examiner notes that *In re Bell* requires an "unsupported" list of species to be in a "predictable" art area (e.g., see MPEP § 2163, "in the molecular biology arts, if an applicant disclosed an amino acid sequence, it would be unnecessary to provide an explicit disclosure of nucleic acid sequences that encoded the amino acid sequence. Since the genetic code is widely known, a disclosure of an amino acid sequence would provide sufficient information such that one would accept that an applicant was in possession of the full genus of nucleic acids encoding a given amino acid sequence, but not necessarily any particular species. Cf. *In re Bell*, 991 F.2d 78 1, 785, 26 USPQ2d 1529, 1532 (Fed.Cir. 1993)"). Here, no such "genetic code" or other distinguishing feature and/or formula (e.g., structure/function relationship) exist that would allow a person of skill in the art to conclude that Applicants were in possession of the claimed invention. the Examiner contends

that NONE of the disputed species listed in Applicant's specification would allow a person of skill in the art to immediately envision ANY of the R(F-L)-X activity based probes (other than the biotinylated fluorophosphonate probe disclosed in Applicant's single working example). Furthermore, applicant has provided only a "trial and error" method of preparation of the R(F-L)-X activity based probes, which the CAFC has held does not satisfy the written description requirement (e.g., see University of Rochester v. G.D. Searle & Co.- Inc., 358 F.3d 916, 69 USPQ2d 1886 (Fed.Cir.2004)). Finally, applicant has not disclosed any physical and/or chemical properties (e.g., structure/activity relationship) that could be used to alleviate these shortcomings.

2) the Examiner contends that the prior art is in its infancy and would thus would restrict Applicants' claimed scope rather than expand it. For example, Adam et al. (*Chemistry & Biology*, **2001**, 8(1):81-95; *cited in IDS filed 11/17/03*) disclose that the art is in its infancy (pg. 91, left col., lines 2-17), wherein the co-authors are Cravatt and Sorensen (i.e. applicant).

3) applicant's statement is wholly unsubstantiated because no rationale is provided to support this position.

Accordingly, the rejection under 35 U.S.C. 112, first paragraph (written description), is hereby maintained.

17. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted step(s) is(are): the step(s) of how the probes specific to the "active target

members" enter the intact cell in order to conjugate with the "active target members" and how the conjugated probes in the proteomic mixture in the intact cell is determine.

Response to Arguments

18. Applicant's argument directed to the rejection under 35 U.S.C. 112, second paragraph, for claim 36 has been fully considered but they are not persuasive for the following reasons.

Applicant alleges that the step of treating the cell (i.e. how the probe enter the cell) is not essential to the method defined by the present claim 36 because "[A]s set forth in the specification (see, e.g., page 42, paragraph 1 10), a sample (such as an intact cell) may be treated prior to employing a method of the invention. Specifically, when the probes do not readily pass through a cellular membrane, the cells may be treated with a reagent effective for lysing the cells. Applicants submit that this treatment step is not an essential step in the methods of the invention. Indeed, if necessary this step is performed prior to employing a method of the invention."

Applicant's arguments are not convincing since the method require that a conjugate is form between the probe and the target members (step (b) of claim 17) then it is essential for the probe to enter the cell. Thus the treatment step is essential step in the method by the present claim 36 even if it is 'performed prior to employing a method of the invention'. Accordingly, the rejection under 35 U.S.C. 112, second paragraph, for claim 36 is hereby maintained.

Claim Rejections - 35 USC § 102

19. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Chin et al. (US Patent 6,197,599 B1).

The instant claimed method comprises the following claimed method steps: a) combining each of the proteomic mixtures with at least one probe that is specific to the target members of interest; b) determining the presence of the target members conjugated with the probe in each of the proteomic mixtures.

Chin et al. disclose a method of protein screening (col. 3, lines 4-17). The method (col. 8, claim 2) comprises the following method steps: a) immobilizing a plurality of antibodies on a solid support; b) preparing a mixture (proteomic mixture) containing said first test protein and said plurality of second test proteins; c) applying said mixture to said solid support with immobilized antibodies (probe) and incubating under conditions to permit binding of said second test proteins (target members) thereto (step "a" of the instant claimed method); d) detecting the positions of said first test protein on said solid support thereafter; e) identifying the second test protein from the positions where said first test protein is detected, whereby the interaction between said first test protein and the one or more of said second test proteins is identified (step "b" of the instant claimed method). The antibodies are specific to the protein of interest (col. 5, lines 37-38, and 50-51). Therefore, the method of Chin et al. anticipates the instant claimed method.

Response to Arguments

20. Applicant's arguments directed to the rejection under 35 USC 102(e) as being anticipated by Chin et al. (US Patent 6,197,599 B1) for claim 17 were considered but they are not persuasive for the following reasons.

Applicant argues that method Chin et al. does not anticipates the presently claimed method because "[C]hin does not disclose or suggest a method for determining active target

members (proteins) in a proteomic mixture. Instead, Chin merely describes methods for detecting interactions between a first protein and a second protein."

Applicant's arguments are not convincing since Chin et al. do disclose "a method for determining active target members (proteins) in a proteomic mixture" (col. 5, lines 18-60). Accordingly, the rejection under 35 USC 102(e) as being anticipated by Chin et al. is hereby maintained.

21. Claims 17, 32-36, 38-40, 42, and 46 are rejected under 35 U.S.C. 102(a) as being anticipated by Liu et al. (*PNAS*, **1999**, 96(26): 14694-14699).

The instant claimed method comprises the following claimed method steps: a) combining each of the proteomic mixtures with at least one probe; b) determining the presence of the target members conjugated with the probe in each of the proteomic mixtures. The activity probe comprise of fluorophosphonate-biotin (FP-biotin).

Liu et al. disclosed a method of activity-based protein profiling using an active site directed probe (Abstract). The probe is a biotinylated fluorophosphonate, FP-biotin, (referring to claims 35, 38-40, 42, and 46) (pg. 14694, left col., lines 30-33). The method steps of reacting protein samples (proteomic mixture) with FP-biotin (activity-based probe) include combining FP-biotin mixture with the protein samples and detecting the FP-biotin-reactive proteins by SDS/PAGE-Western Blotting (pg. 14695, right col., lines 26-64) (referring to claim 17). The FP-biotin-reactive proteins are further analyzed by MALDI mass spectrometry (pg. 14696, left col., lines 11-15) (referring to claims 32-33). FP-biotin can react with numerous serine

hydrolyses (target enzyme) in crude cell and tissue samples (pg. 14698, left col., lines 1-8) (referring to claim 36). Therefore, the method of Liu et al. anticipates the claim method.

Response to Arguments

22. Applicant's arguments directed to the rejection under 35 USC 102(a) as being anticipated by Liu et al. (*PNAS*, **1999**, 96(26): 14694-14699) for claims 17, 32-36, 38-40, 42, and 46 were considered but they are not persuasive for the following reasons.

Applicant contends that "[L]iu is not available as prior art under 35 U.S.C. 102(a) since the subject matter set forth in Liu was derived from Applicants' own work. Indeed, it is noted present inventors Cravatt and Patricelli are co-authors of the Liu publication, and, as set forth in the accompanying declaration, co-author Liu did not contribute to the mental conception of the present invention". Therefore, the method of Lui et al. does not anticipate the claim method.

Applicant's arguments are not convincing since the declaration is insufficient to overcome the rejection under 35 USC 102(a) (see paragraph 11 above). The inventive entity would still be different even if the inventor Liu were removed from the inventive entity (e.g. the Lui et al. publication would have Patricelli and Cravatt whereas the current application has Cravatt, Sorensen, Patricelli, and Lovato). Thus the 35 USC 102(a) rejection is hereby maintained.

Claim Rejections - 35 USC § 103

23. Claims 17, 32-40, 42, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (*PNAS*, **1999**, 96(26): 14694-14699) and Blanchard et al. (US Patent 5,151,164).

The instant claimed method comprises the following claimed method steps: a) combining each of the proteomic mixtures with at least one probe; b) determining the presence of the target members conjugated with the probe in each of the proteomic mixtures. The method step further comprise of analyzing for the presence of proteins conjugated with the probe using capillary electrokinetic analysis. The activity probe comprise of fluorophosphonate-biotin (FP-biotin).

Liu et al. disclosed a method of activity-based protein profiling using an active site directed probe (Abstract). The probe is a biotinylated fluorophosphonate, FP-biotin, (referring to claims 35, 38-40, 42, and 46) (pg. 14694, left col., lines 30-33). The method steps of reacting protein samples (proteomic mixture) with FP-biotin (activity-based probe) include combining FP-biotin mixture with the protein samples and detecting the FP-biotin-reactive proteins by SDS/PAGE-Western Blotting (pg. 14695, right col., lines 26-64) (referring to claim 17). The FP-biotin-reactive proteins are further analyzed by MALDI mass spectrometry (pg. 14696, left col., lines 11-15) (referring to claims 32-33). FP-biotin can react with numerous serine hydrolyses (target enzyme) in crude cell and tissue samples (pg. 14698, left col., lines 1-8) (referring to claim 36).

Liu et al. does not expressly disclose that the protein is detected by capillary electrokinetic analysis.

Blanchard et al. disclose an apparatus for improving the capillary electrophoretic processes (col. 2, lines 21-23). The capillary electrophoresis apparatus can be employed in the electrophoretic resolution of a wide variety of solutions and suspension including protein and polypeptides (col. 3, lines 51-68). The enhanced capillary zone electrophoretic apparatus and

process would provide low volume capability, high separation efficiency, and sensitive detection scheme.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include capillary electrokinetic analysis as taught by Blanchard et al. in the method of Liu et al. One of ordinary skill in the art would have been motivated to include capillary electrokinetic analysis in the method of Liu et al. for the advantage of low volume capability, high separation efficiency, and sensitive detection scheme (Blanchard: col. 3, lines 65-68). Since both Liu et al. and Blanchard et al. disclose a method of detecting protein by electrophoresis (Liu: pg. 14695, right col., lines 26-64; Blanchard: col. 3, lines 51-68).

Response to Arguments

24. Applicant's arguments directed to the above rejection under 35 USC 103(a) as being unpatentable over Liu et al. (*PNAS*, **1999**, 96(26): 14694-14699) and Blanchard et al. (US Patent 5,151,164) for claims 17, 32-40, 42, and 46 were considered but they are not persuasive for the following reasons.

Applicant alleges that the declaration filed under 37 CFR 1.132 is sufficient to overcome the Liu et al. reference "[a]nd therefore can not be combined with Blanchard in applying a rejection under 35 USC 103(a)". Thus the combination of Liu et al. and Blanchard et al. is not obvious over the presently claimed invention.

Applicant's arguments are not convincing since the declaration is insufficient to overcome the Liu et al. reference (see paragraph 12 above). The inventive entity would still be different even if the inventor Liu were removed from the inventive entity (e.g. the Lui et al. publication would have Patricelli and Cravatt whereas the current application has Cravatt,

Sorensen, Patricelli, and Lovato). Thus the combination of Liu et al. and Blanchard et al. is obvious over the presently claimed invention , and the 35 USC 103(a) rejection is hereby maintained.

Furthermore, applicant argues that the declaration filed under 37 CFR 1.132 is sufficient to overcome the Liu et al. reference and that "[e]ven when taken alone Blanchard et al. does not render the claims obvious". In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

New Rejection - Necessitated by Newly Submitted IDS

Claim Rejections - 35 USC § 102

25. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

26. Claims 17, 32, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Purohit et al. (*Biochemistry*, **1995**, 34(36):11508-11514). *Note: the reference cited by applicant in IDS filed 11/17/03.*

Purohit et al. disclose a method for screening a library of estrones (probe) for potential inhibition of sulfatase enzymes (i.e. estrone sulfatase and dehydroepiandrosterone sulfatase) in placental microsomes and intact MC1Q7 breast cancer cells (Abstract; pg. 11508, figure 1,

compounds 4-6; pg. 11509, left col., lines 34-39) (refers to claim 17 and claim 36). The method comprises combining members of the library with a complex mixture (e.g., the placental microsomes and intact MCF-7 breast cancer cells that contain estrone sulfatase and dehydroepiandrosterone sulfatase) wherein conjugates are formed between the library members and the sulfatase proteins (refers to claim 17, step (a)), and isolating said conjugates from the active and inactive complex mixture (refers to claim 17, step (b) –(c) and claim 32) (pg. 11509, left col., line 49 to right col., line 63; page l 1513, figure 8). Therefore, the method of Purohit et al. anticipates the presently claimed method.

Conclusion

27. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 11/17/03 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a) and MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T TRAN whose telephone number is 571-272-0810. The examiner can normally be reached on Mon.: 8:00-2:30; Tues.-Thurs.: 7:30-5:00; Fri.: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDREW WANG can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mct
May 25, 2004

PADMASHRI PONNALURI
PRIMARY EXAMINER